

idea concerning *L. sepium* is correct, and that it is not a distinct species, but a hybrid between *L. repens* and *L. vulgaris*. Four forms were raised from the seeds of *L. sepium*: (1) *L. sepium*, (2) a plant closely resembling *L. repens*, (3 and 4) slightly differing forms of *L. vulgaris*.

*L. repens* is growing on the same bed in the garden as the *L. sepium* from which these seeds were obtained, but *L. vulgaris* grows in quite a different part of the garden. Similarly at Bandon, I learn from Dr. Allman that *L. repens* and *L. sepium* grow together, but *L. vulgaris* is not found within a mile of *L. sepium*.

Since the above note was written, I have received from Bandon, through the kindness of Dr. Allman, a series of specimens quite connecting *L. sepium* and *L. repens* which he had gathered in their native place. The result derived from cultivation is thus, to a great extent, confirmed by observation of the wild plants.

#### BIBLIOGRAPHICAL NOTICES.

*Catalogue of the Genera and Subgenera of Birds contained in the British Museum.* By G. R. GRAY, F.L.S. London: 1855.

THIS is one of the latest and most valuable additions to the excellent series of British Museum Catalogues now in course of publication. It is, in fact, a new edition of Mr. G. R. Gray's well-known 'List of the Genera of Birds,' which has contributed so much to the reform of ornithological nomenclature. During the eleven years which have passed since the issue of the last edition of this work, great progress has been made in ornithology as in other branches of natural science. Books, pamphlets, and periodicals in all parts of the civilized globe contain the labours of naturalists vying with each other for precedence in establishing new genera, new species, and new arrangements among the members of the Class *Aves*; and though there has been some complaint, and not without foundation, that ornithology has hitherto been rather a neglected branch of natural science, it would seem that the present activity, if continued, bids fair to advance our knowledge of this interesting subject to at least a par with that of the other classes of the animal kingdom.

As regards however the *genera* of Birds, the subject of Mr. Gray's work, we fear that the ornithologists of the present day are advancing rather too rapidly. Mr. Gray's list of 1844 contained upwards of 1100 distinct types which had then been raised to the dignity of genera. By the present work it appears that since then the number has been more than doubled—those given in the present Catalogue and Appendix amounting to no less than 2400—and we believe that since its publication many others have been created to swell the list. Now, considering that, according to the most recent estimate,

the known species of birds cannot be calculated to exceed 8000, it seems that we have already split up the genera to such an extent that they contain on the average only about three species apiece. And as it is requisite that in any natural system the genera should have as nearly as possible the same amount of difference *inter se*, and these new genera have been created much more abundantly in some groups than in others, it follows that, in order to reduce all the generic divisions to a uniform standard, a vast number of further genera must be created, and we shall ultimately have not more than two or perhaps one species in each genus.

Such a result would, we suppose, be condemned by every naturalist, but it cannot be avoided if the present system is much longer pursued. The fact is that a large proportion of the recently established so-called genera are founded upon such slight differences, that it would be quite impossible to draw up generic characters for them. These modern genus-makers do not hesitate to coin a new appellation for any two or three allied species that resemble each other in colouring and form what may be called a homochroous group, without reflecting that each of the other numerous isolated idiochroous species of the genus have equal claims to similar distinctive separation\*.

But though it cannot be denied that style of colouring is often an excellent guide to affinities, we maintain that generic names are only to be employed where there are real differences in structure, and not where merely the plumage is dissimilar. The appellations applied to these minor groups should be either altogether unnoticed, or merely placed in any arrangement of the species at the head of each group, in the manner shown by Mr. G. R. Gray in the more lately published Catalogues of the British Museum.

Even more lamentable than the rapid increase of these generic subdivisions is the fact that many of them have received three or four and even more synonymous appellations from different authors, and some of them more than one from the same author! In spite of the '*stern law of priority*' now professed to be submitted to by the whole scientific world, several individual writers seem to think little of changing names that they have themselves imposed. Thus we find *Strophiolæmus* (1853) and *Iolæma* (1854) proposed by the same author for the same genus of *Trochilidæ*, *Galbalcyrhynchus* (1845) and *Jacamaralcyonides* (1849) for the same genus of *Galbulidæ*, *Cyanopolius* (1849) and *Cyanopica* (1850) for the same genus of *Corvidæ*, and *Chlorochrysa* and *Calliparæa* in the same year for the same genus of Tanager, without any apparent excuse for the creation of the second names, unless it be forgetfulness that the first-given had ever been proposed. It is to be hoped that Mr. Gray's Catalogue,

\* In resolving many natural genera into species, it will be found that groups of threes or fours often show great similarity in plumage, and are what may be called '*homochroous*' (*ὁμόχρως*, *similem colorem habens*). These are generally distributed over different geographical areas, and represent each other in their respective localities. Other individual species have peculiar colouring of their own, and may be termed *idiochroous* (*ἰδιος*, *peculiaris*, et *χρῶς*, *color*).

and the sight of the four or five thousand names contained in the Index thereto, will render naturalists rather more careful in further increasing the already too gigantic proportions of the '*Corpus Generum Avium*.'

Another fruitful source of useless synonyms is, that there are still one or two writers on ornithology who reject a generic name unless it be formed classically and out of pure Greek or Latin. It is hard to refuse one's sympathy to those who recoil from such odious names as *Smithiglaux*!, *Kaupifalco*!!, *Graydidascalus*!!!, *Corythaixoides*!!!!, and *Strigythemipus*!!!!; but it has been now universally agreed that *barbarism* is not sufficient excuse for superseding already established names by new ones, and we fear that Dr. Cabanis' and Professor Reichenbach's classical alterations of even such names as these will be placed in all future catalogues of Bird-genera (as in Mr. Gray's) among the mass of useless synonyms. On the other hand, the present work goes quite in the opposite extreme from those of the last-mentioned writers. If, from the ignorance or mistake of the proposer of a genus, the name happens to be wrongly spelt, there seems to be no reason whatever why such an error should be retained *in perpetuum*. That would indeed be unnecessary stickling for the law of priority. Yet Mr. Gray appears to hold, that right or wrong we are bound to adopt the spelling originally given by the proposer of the genus, and to allow of no corrections or emendations even of faults due to typographical errors only. Now it must be recollected, that we profess to use the *Latin* language in our present system of nomenclature, and we ought to follow its rules as closely as possible. In such names therefore as *Thryothorus*, *Pycnosphys*, *Scotornis* and the like (where there is no doubt of what the creators of the names intended by them), it seems ridiculous that we should be called upon to continue such palpable errors as to write them *Thriothorus*, *Pycnosphrys* and *Scortornis*. Mr. Gray has—we think, unnecessarily—increased his already sufficiently laborious undertaking by attempting to quote every variety of reading to every generic name which the ignorance of authors or the mistakes of their printers have caused. Of what good can it be to perpetuate the fact that somebody has been stupid enough to write *Nyctidromus Nyctydromus*, and *Oreotrochilus Oriotrochilus*? What benefit can we derive from being reminded that *Eulampis* has been misprinted *Culampis*, and *Selasphorus Selosphorus*? Surely it would have been better to have left such inaccuracies unnoticed and forgotten.

Again, we fear that confusion is likely to be caused by the introduction of the French names which Mr. Gray has permitted in some parts of his List, and which in some cases he seems to give a preference to over the corresponding Latin terms. It may be true that M. Lesson was the first to indicate the genera *Chrysuronia* and *Crossophthalmus* under the French names *Les Chrysures* and *Les Picazores*, but that is no reason why these last names should be introduced into a scientific list of genera, where Latinity is or ought to be a first condition to any claim for recognition. If we once open the door to non-Latin names, we shall be deluged with those of Buffon,

Azara, Levaillant, and a host of others, who established many very excellent genera, but have necessarily lost the credit of their discoveries owing to their having neglected to employ for the designation of them the one language recognized by the world of science.

There are one or two other points in which we think the principles adopted by Mr. Gray in the present edition of his List do not work well. In the preface it is stated that the synonymy commences with the edition of Linnæus's 'Systema Naturæ' published in 1735. Now Linnæus had not at that time invented his binominal system, and it is therefore neither correct nor necessary to commence our present nomenclature from so early a period. The question, what edition of the 'Systema Naturæ' we ought to begin with, has been already discussed in a previous review of a former edition of Mr. Gray's book in this Magazine\*, and Mr. Gray has himself acknowledged, in the preface to his List of 1844, that the '*invaluable principle*' of the binominal system was not established before 1758; but in his present work he always begins by quoting the edition of 1735, and seems even to give that and the other earlier editions an occasional preference over the subsequent and more perfect publications. At the same time he takes it for granted, that the first species on the list of each of these editions was intended to be the type of the genus,—a point which appears to admit of much argument. The adoption of these principles in the present edition has caused some rather important changes in the types and names of certain well-known genera; changes in zoological nomenclature, where the maxim '*quieta non movere*' ought to carry more than ordinary weight, and in which, we think, other naturalists will be rather loth to follow. For example, *Alca* is now referred to the Puffins (*A. arctica*) instead of the Great Auk, and *Chenalopex*! (a term always hitherto appropriated to the *Anas ægyptiaca*) is proposed to be used for the *Alca impennis*, as having been so applied by Moehring in 1752! The type of the genus *Tanagra* is altered, because the *T. episcopus* (always hitherto considered as such) does not stand first in Linnæus's list. Now the very fact that Linnæus placed first one and then another species at the head of his genera seems conclusive against the *necessity* of invariably adopting the first species as the type. Indeed Mr. Gray has not ventured to carry out these rules throughout to their legitimate result. Had that been done, he must have used *Strix* for the Horned Owls (*Bubo*), and *Falco* for the Eagles (*Aquila*), and besides that have introduced a variety of other equally objectionable changes.

Again, although it cannot be questioned that the *same name* ought not to be used in zoology for two different animals, and there are also strong reasons for an alteration when names even *closely resemble* one another, Mr. Gray's changes on these grounds occasionally go beyond what seems absolutely necessary. *Harpactes* certainly ought not to be liable to be mistaken for *Arpactus*, or *Lophūra* for *Lophyrus*, and we hope therefore Mr. Gray will not be imitated in

\* See Mr. Strickland's article in the 'Annals and Magazine' for 1851.

his rejection of these names in favour of *Hapalurus* and *Macartneya*, or in other similar changes.

We also regret that Mr. Gray has not thought fit to adopt the very simple rule given in the British Association Committee's Report for the formation of the names of the families and subfamilies in *idæ* and *inæ*, and from which a very desirable uniformity would have ensued. As it is, we have *Steatorninaæ* instead of *Steatornithinæ*, *Podagirinaæ* instead of *Podagrinaæ*, *Coraciadæ* instead of *Coraciidæ*, *Arainæ* (!) instead of *Arinæ*, and so on.

A catalogue of the unabbreviated names of the authors of the different genera, and of the chief works in which they have published them, would have been a very useful addition to Mr. Gray's List, though one which would have doubtless involved a certain amount of extra labour; for even the professed ornithologist will be puzzled to find the place where some of the names given in the List were first promulgated. The fact is that certain authors are in the habit of publishing names used by other persons only in MS., or for the labels of Museum specimens, and which cannot therefore be recognized previously to such publication. For example, Dr. Schiff of Frankfort-am-Main, to whom several genera among the *Piprinaæ* and elsewhere are attributed, has, we believe, never *published* anything on the subject of ornithology. Prince Bonaparte has, however, introduced Dr. Schiff's MS. names into some of his recent lists of genera, and they have consequently been included in Mr. Gray's Catalogue. It would have been better had Mr. Gray in this and similar cases given the name of the *publisher* of the genus as well as that of the supposed originator.

Lest the foregoing remarks should be thought to be rather in blame than in praise of Mr. Gray's book, it is right to conclude by repeating the commendation bestowed upon it at the beginning of our notice. We regard it as a most valuable contribution to natural history, and quite indispensable as a work of reference to the student of scientific ornithology. Mr. Gray deserves the warmest thanks of all naturalists for the great labour he has bestowed upon the collection of such a vast mass of materials from so many different sources, and for the care with which he has reduced them into arrangement. We may also repeat our hope that his book will not only be a useful guide through the perplexing mazes of ornithological synonymy, but also have some effect in checking those naturalists, who, instead of following Mr. Gray's example and endeavouring to assist others in clearing the way, are rather increasing difficulties by useless additions to the already enormous catalogue of Bird-genera.

*Descriptive and Illustrated Catalogue of the Histological Series contained in the Museum of the Royal College of Surgeons. Prepared for the Microscope.* Vol. ii. London. 1855. 4to.

The previous volume of this valuable work was devoted to the structure of the harder tissues of plants and invertebrate animals;